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WITNESS my hand this
Eleventh day of April 2003

J R Yabsley

JONNE YABSLEY
TEAM LEADER EXAMINATION
SUPPORT AND SALES

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**ENHANCEMENT PHALLOPLASTY**

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(71) Applicant(s)
**COLIN CAMPBELL MARSHALL MOORE**

(72) Inventor(s)
**COLIN CAMPBELL MARSHALL MOORE**

(74) Attorney or Agent
**WALLINGTON-DUMMER , PO Box 297, RYDALMERE NSW 1701**

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# COMPLETE SPECIFICATION

## FOR A STANDARD PATENT

## ORIGINAL

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Name of Applicant: **Colin Campbell Marshall Moore**

Actual Inventor: **Colin Campbell Marshall Moore**

Address for service in Australia: **WALLINGTON-DUMMER**
PO Box 297, Rydalmere NSW 7101
(12 Clarke Street, Rydalmere NSW 2116)

Invention Title: **Enhancement Phalloplasty**

This application is a Divisional Patent Application of and a Patent of Addition to Australian Patent Application No. 53864/98.

The following statement is a full description of this invention, including the best method of performing it known to us

**ENHANCEMENT PHALLOPLASTY**

This invention relates to enhancement phalloplasty, which is a surgical procedure to modify the human penis, normally by increasing the length of or widening the penis.

There are several reasons for persons requiring operations of this type. The first is for persons who are born with small penises. These persons can often believe that they are the subject of derision and ridicule and the lack of size of the appendage can be emotionally very difficult for them.

A second is where persons, either for personal pleasure or for professional reasons, such as strip-tease dancers, actors and the like, wish to be seen to have a large penis.

There have been previously proposed methods of enhancement phalloplasty but these have not been fully successful.

The major object of the invention is to provide methods of enhancement phalloplasty which provide satisfactory results and which are safe procedures and which result in lengthening the penis in both the flaccid and erect states.

Accordingly, in one broad form of the invention, there is provided a method of lengthening the penis of a male which includes the steps of placing the suspensory ligament under tension in the inferior direction; dividing the suspensory

ligament against the body of the symphysis pubis down to the inferior pubic arch and along the inferior surface of both the right and left conjoined inferior pubic rami; effecting suturing to retain the penis released from the suspensory ligament in an inferior position by coapting the proximal medial attachments of the right and left gracilus muscle together ventral the released penis, dividing the fundiform ligaments, drawing the skin of the junction site of the scrotum and the perineum mediosuperiorally so as to attach it to the symphysis pubis thereby pushing the skin adjacent thereto along the newly exposed shaft of the penis and suturing this to retain this position.

Preferably said method is followed by the insertion of additional sutures through the anterior surface of the symphysis pubis; said sutures also placed through the margins of the pubic skin wound and tied in such a manner as to pull suprapubic skin down infrapubically.

Preferably the number of said additional sutures inserted is 1 or more.

Preferably the number of said additional sutures is determined by the width of the symphysis pubis.

Preferably said method further includes the step of dividing the fundiform ligament prior to said step of drawing the skin of the junction site of the scrotum.

In a further broad form of the invention there is provided a method of widening a penis wherein a block of fat and attached dermis (dermal fat graft) is excised from the patient, the penis is degloved, the dermal fat graft is sutured to the exposed Bucks fascia and then reducing the penile skin.

Preferably the dermal fat grafts are harvested from either the buttocks, lower back of lower abdomen.

In yet a further broad form of the invention there is provided a method of lengthening and widening a penis, the lengthening using the method as claimed above and the widening using the method as claimed above wherein the dermal fat graft is sutured to the exposed Bucks fascia prior to the tying of the sutures which maintain the lengthening of the penis.

In order that preferred embodiments of the invention may be more readily understood, I will describe certain procedures in greater detail below.

The first of these has to do with penile enlargement. This involves suprapubic (or other type) incision and exposure of the suspensory and fundiform ligaments of the penis and their division under direct vision from the suprapubic area and the inferior bodies of the pubic arch (i.e. all of the anterior surface of the pubic symphysis.

The penis is depressed posteriorly by approximating the medial edges of the upper ends of the right and left Gracilis muscle in front of the penis. The suprapubic skin is rearranged (by Zplasty, excision or a combination of both) and sutured together and to the superior and anterior surfaces of the body of the pubis right and left.

To aid in the full understanding of the invention, I will more fully describe the procedures of preferred embodiments:

**Penile Lengthening**

With the patient under general aesthesia and in the supine position the lower abdomen, perineum and thighs are prepared and draped. In the classic procedure, a transverse suprapubic incision is made measuring approximately 3cm in length. Various other incision can be used such as W plastys, Z plastys, vertical and peno-scrotal incisions and the like.

The incision site and the adjacent mons tissues are infiltrated with local anaesthetic and adrenalin. The tissues overlying the mons veneris are separated laterally and the fundiform and suspensory ligaments of the penis are visualized.

Dissection is carried down by a blunt technique on either side of the suspensory ligament which is then divided

under direct vision using diathermy. The dissection is carried out against the body of the symphysis pubis down to the inferior pubic arch level and along the conjoined rami of ischium and pubis for a short distance. During the maneuver the assistant pulls the penis in an inferior direction placing the ligament under tension and it can be seen under direct vision and the neurovascular bundles can also be directly visualized and preserved.

At this point, an O Maxon (or other suture material) deep stay suture is inserted into the deep surface of the pubic symphysis and then carried around the right Gracilis fascia and muscle across to the left Gracilis fascia and muscle and the suture left loose. A second O Maxon (or other suture material) is then inerted distal to the first suture so as to further coapt the right and left Gracilis muscles in front of the penis. Two more deep stay sutures of O Maxom (or other suture material) are then inserted into the pubic bone inferior surface laterally and left untied. A fifth, sixth and seventh O Maxon (or other suture material) suture are placed into the very superior edge and anterior surface of the exposed symphysis pubis and left untied.

The first deep stay suture of O Maxon is then tied commencing with the one involving both Gracili which can be observed to approximate in front of the inferiorly depressed

shaft of the penis followed by tying the second O Maxon Gracilis suture. The tissues on each side of the mons veneris at this point are then dissected and the fundiform ligaments which are now clearly outlined as a result of this dissection are also divided under direct vision down to but not including the tissues overlying the spermatic cords on either side. The junction of the perineal and scrotal skin on either side is then identified approximately 3cm lateral to the midline and one each of the remaining third and fourth O Maxon (or other suture material) sutures is/are inserted into the deep layers of the dermis of the scrotum on each side and the sutures tied. This draws the skin of the junction side of the scrotum and perineum mediosuperiorally pushing the skin adjacent to it along the newly exposed shaft of the penis. The fifth, sixth and seventh O Maxon suture are inserted into the deep layers of the suprapubic incision in the centre and on either side and are tied so as to gently curve the skin of the mons veneris down over the top of the symphysis pubis further aiding the movement of the abdominal skin onto the new penile shaft.

After trimming the wound is closed in layers and dressings are applied.

**Penile Widening by Dermal Fat Graft**

With the patient under satisfactory general aesthesia and in the prone position, the buttock, anal area and thighs are prepared and draped. The areas of incision at the buttock/thigh fold on both legs, which were previously marked, are infiltrated with a mixture of local anaesthetic and adrenalin and then the outer layers of the epidermis are dissected off over an area measuring of the order of 5 x 10cm or more cms. The actual size will be determined by the initial size of the penis measured preoperatively. Once the epidermis has been dissected free it is discarded. The exposed dermis, together with its layer of subtenant fat measuring approximately 2cm deep is excised en bloc using a mixture of cautery and sharp dissection.

The graft is then wrapped in a pack soaked in Ringer's solution and kept at room temperature. The wound is closed in layers. Dressings are applied.

The patient is then turned from the prone to the supine position while still anaesthetized and the lower abdomen, perineum and thighs prepared and draped.

The area of the incision is then infiltrated with a mixture of local anaesthetic and adrenalin.

If widening is done in conjunction with lengthening, the incision is usually transverse though it may be any

combination of the incisions described under lengthening, above including the peno-scrotal incision. If widening is done alone then a transverse suprapubic incision is usually used although any of the above incisions may be used.

If the patient is already circumcised, infiltration of the old circumcision scar in its anterior half may also be carried out. If the patient is not circumcised it is necessary to proceed to circumcision usually, as this is a requirement for dermal fat grafting usually (though not always), then the entire circumference of the penis at the proposed circumcision site is infiltrated with local anaesthetic and adrenalin.

If the peno-scrotal approach is being used with degloving of the penis, then a completely circumferential infiltrate with local anaesthetic is used whether the patient is circumcised or not.

Once the incision, be it peno-scrotal, or more commonly transverse suprapubic, has been carried down to the deeper layers by blunt dissection, the skin and superficial fascia of the penis is separated from the shaft of the underlying penis in its entire length and circumference.

At this point, the anterior half of the old circumcision scar may be reopened (in the case of the suprapubic transverse incision) or the entire old circumcision scar or a

new circumcision site is opened in the case of the uncircumcised who require circumcision, and in the case of the peno-scrotal approach in the former. The penis is then degloved. The dermal fat graft is then sutured to the exposed Bucks fascia commencing on the coronal groove distally and going as far proximally as is possible with the wound exposure. This should be at least well down into the infra pubic region of the symphysial or mid-portion of the penile shaft. The graft is attached all around the shaft of the penis leaving only the corpus spongiosum exposed.

The penile skin is then reduced, the circumcision wound (if applicable) is then closed as is the peno-scrotal incision if it has been used after the dartos fascia has been closed.

If the suprapubic incision has been used it is closed in layers. Telfa is applied to the wounds and the penis is encased in a crepe bandage as a moderately compressed dressing.

**Combined Penile Lengthening and Widening**

With the patient in the prone position, the dermal fat grafts are harvested as described above. The patient is then turned to the supine position and the operation proceeds as described under penile lengthening to the point where all of

the deep stay sutures are in place but not tied. At this time, the distal circumferential incision (circumcision site incision if required) is performed, the penile skin is developed and the penis degloved. The dermal fat graft is then sutured into place as described above.

Once the penile skin has been reduced, the deep stay sutures are then tied as described above in regard to penile lengthening and attached to their other structures. All wounds are then closed as described above.

Whilst I have described herein certain embodiments of the concept of the present invention, it is to be understood that modification can be made in the specific surgical techniques by the use of other known techniques.

The claims defining the invention are as follows:

1. A method of lengthening the penis of a male which includes the steps of placing the suspensory ligament under tension in the inferior direction; dividing the suspensory ligament against the body of the symphysis pubis down to the inferior pubic arch and along the inferior surface of both the right and left conjoined inferior pubic rami; effecting suturing to retain the penis released from the suspensory ligament in an inferior position by coapting the proximal medial attachments of the right and left gracilus muscle together ventral the released penis, dividing the fundiform ligaments, drawing the skin of the junction site of the scrotum and the perineum mediosuperiorally so as to attach it to the symphysis pubis thereby pushing the skin adjacent thereto along the newly exposed shaft of the penis and suturing this to retain this position.

2. The method of Claim 1 followed by the insertion of additional sutures through the anterior surface of the symphysis pubis; said sutures also placed through the margins of the pubic skin wound and tied in such a manner as to pull suprapubic skin down infrapubically.

3. The method of Claim 2 wherein the number of said additional sutures inserted is 1 or more.

4. The method of Claim 3 wherein the number of said additional sutures is determined by the width of the symphysis pubis.

5. The method of any of Claims 1 to 4 including the step of dividing the fundiform ligament prior to said step of drawing the skin of the junction site of the scrotum.

6. A method of widening a penis wherein a block of fat and attached dermis (dermal fat graft) is excised from the patient, the penis is degloved, the dermal fat graft is sutured to the exposed Bucks fascia and then reducing the penile skin.

7. A method as claimed in Claim 6 wherein the dermal fat grafts are harvested from either the buttocks, lower back of lower abdomen.

8. A method of lengthening and widening a penis, the lengthening using the method as claimed in Claim 1 and the widening using the method as claimed in Claim 6 wherein the dermal fat graft is sutured to the exposed Bucks fascia prior to the tying of the sutures which maintain the lengthening of the penis.

9. A method of lengthening the penis of a male substantially as herein described.

10. A method of widening a penis substantially as herein described.

11. A method of lengthening and widening a penis substantially as herein described.

DATED this 3rd day of April 2002.

Colin Campbell Marshall Moore
By His Patent Attorneys
WALLINGTON-DUMMER

**ABSTRACT**

A method of lengthening and/or widening the penis of a male which includes the steps of placing the suspensory ligament under tension in the inferior direction; dividing the suspensory ligament against the body of the symphysis pubis down to the inferior pubic arch and along the inferior surface of both the right and left conjoined inferior pubic rami; effecting suturing to retain the penis released from the suspensory ligament in an inferior position by coapting the proximal medial attachments of the right and left gracilus muscle together ventral the released penis, dividing the fundiform ligaments, drawing the skin of the junction site of the scrotum and the perineum mediosuperiorally so as to attach it to the symphysis pubis thereby pushing the skin adjacent thereto along the newly exposed shaft of the penis and suturing this to retain this position. To achieve penile widening, a block of fat is excised and attached dermis from the patient, degloving the penis and suturing the dermal fat graft to the exposed Bucks fascia.